Small
Business
Innovation
Research

Parallel Processing for Aerial/Satellite Image Understanding

LNK Corporation, Inc.

Riverdale, MD

INNOVATION

Developed parallel algorithms on a SIMD architecture parallel computer for performing real-time aerial image understanding tasks

ACCOMPLISHMENTS

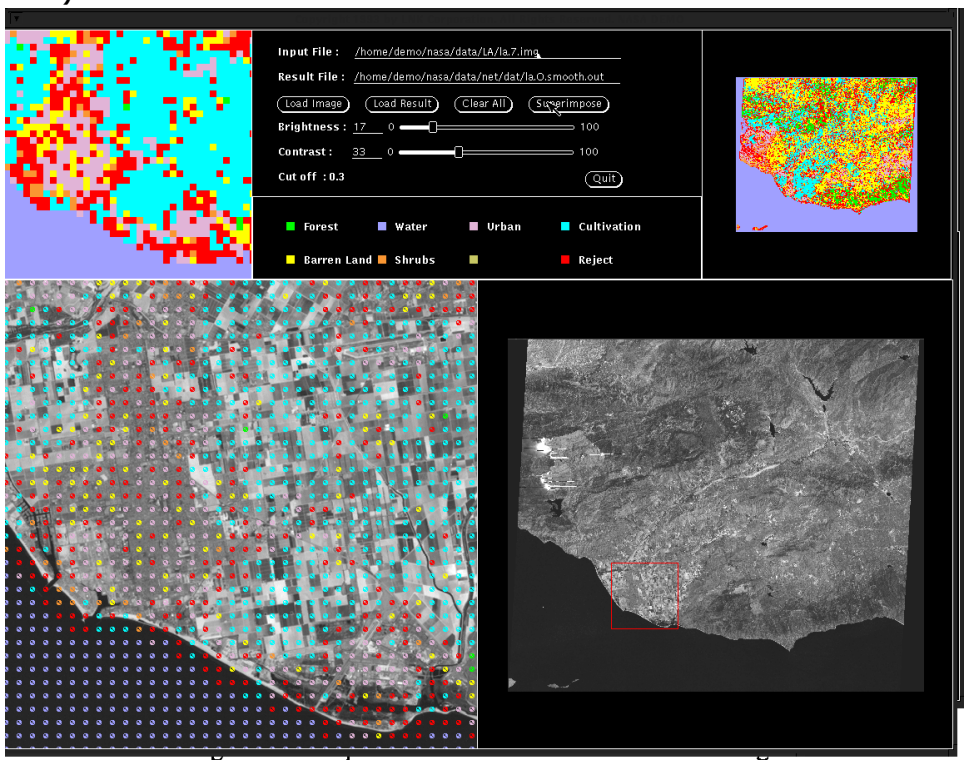
- Used the wavelet transform as a powerful spatio-temporal descriptor of the multispectral imagery.
- Derived a neural network classifier for performing automatic land use classification up to 94% accuracy.
- Ported time-critical pieces of the algorithm to the CNAPS® massively parallel array processor.
- Developed systems for automated registration and multi/hyper spectral image compression.

COMMERCIALIZATION

- Developed and successfully marketed the parallel image processing library LNK_*ImageLib* ®.
- LNK_*ImageLib*® has lead to increased market exposure and related contracts to LNK Corporation.
- More than 50% of the revenue comes from exports.

GOVERNMENT/SCIENCE APPLICATIONS

- Component of the satellite image processing package being integrated by NASA Goddard for distribution to remote data centers (RDCs).



Classification over the Los Angeles Area

GOVERNMENT/SCIENCE APPLICATIONS

- Used in a parallel Navy program for classifying and locating targets in reconnaissance imagery.
- A version of the algorithm is used in an ongoing Phase II effort with the U.S. Army for localizing and navigating unmanned vehicles.

Points of Contact:

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